

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003885**Date Inspected:** 06-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Wu Ming Cai and Ye Yong Jun			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	OBG and SAS Tower Fabrication		

Summary of Items Observed:

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

Bay 2: 114M Tower Mock-ups, Plate Cutting, Rolling

This QA Inspector observed machining/beveling of 1-70mm thick plates marked P710S and 2-40mm thick plate marked P481 and P481 for tower double diaphragm web plate seen in progress. Drilling of 55-30mm bolt holes on 70mm stiffener/connection plate marked P709 and P686 was seen in progress. No Caltrans job at the cutting table and rolling machine was noted idle.

Bay 3: OBG side/bottom/edge panel

The QA Inspector randomly observed ZPMC welder operator ID Number 048810 ID #053742 and ID #051246, utilizing the FCAW Process in the 2F (Horizontal Fillet) Position with gantry(#1) mounted welding apparatus and ZPMC WPS WPS-B-T-2132-3, to weld 6-wt(W21x57) rib stiffener to bottom plate BP170-001-weld joints 003/004, 007/008 and 011/012 respectively. The QA Inspector randomly observed ZPMC CWI Wu Ming Cai monitoring weld parameters.

This QA Inspector also randomly observed ZPMC welder operator ID Number 054459, ID #048801 and ID #062447, utilizing the FCAW Process in the 2F (Horizontal Fillet) Position with gantry(#2) mounted welding

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apparatus and ZPMC WPS WPS-B-T-2132-3 , to weld 6-wt(W18x46) ribs stiffener to side plate SP570-001-weld joints 013/014, 017/018 and 021/022 respectively. The QA Inspector randomly observed ZPMC CWI Wu Ming Cai monitoring weld parameters.

Tack/fit-up of 7-WT (W21x57) rib stiffener to various side plates SP311-001-017~028 and 6-WT(W21x57) rib stiffener to side plate SP338-001-013~024 using THJ506Fe-1 was also noted.

Bay 4: Tower Diaphragm

This QA observed two ZPMC welders ID #066268 and ID #066418 SMAW(2G) PJP welding fill pass on 60mm stiffener plate to tower double diaphragm(bottom) WSD1-SA318B/B weld joints 11 and 9. ZPMC welders were noted utilizing Excalibur E9018M H4R, 4.8mm diameter electrode. The QA Inspector randomly observed ZPMC CWI Ye Yong Jun monitoring weld parameters.

SMAW(4G) tack welding 40mm thick web plate to top tower double diaphragm plate WSD1-SA234 B/B weld joint 3 using Excalibur E9018M H4R, 4.8mm diameter the electrode.

Bay 7: OBG - Floor Beam Sub Assembly

This QA randomly observed ZPMC welder Li Xing ID Number 066675, utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2231-Tc-U2-F-1 to weld CJP root pass on plate splice butt joint (12mm thickness)FB010-011-023. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring preheat and weld parameters.

FCAW(2G) CJP welding repair on tee joint of CA006-017 and CA012-057 due to UT reject per welding repair report B-WR881 and B-WR887 respectively following procedure WPS-345-FCAW-2G(2F)-REPAIR 1. ZPMC welder Hong Shuili ID #044815 and Lui Kaige were seen performing the repair.

Bay 8: Tower Diaphragm

This QA observed ZPMC welder, ID #066734 and ID #037944 utilizing the FCAW Process in the 2F (Horizontal) Position with a 1.4mm diameter electrode, filler metal brand K-71TSR, semi automatic with ZPMC WPS WPS-B-T-4132 to weld fillet fill pass on fillet weld connection between tower diaphragm plate to diaphragm flange NSD1-SA265-1. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

Tack welding of fillet weld connection between tower diaphragm plate to diaphragm flange WSD1-SA290-1 using THJ506Fe-1 electrode was also noted.

Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

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Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Cuellar, Robert

QA Reviewer